

# INPUT

1953 Gallows Road, Suite 560, Vienna VA 22182 (703) 847-6870  
Fax (703) 847-6872

## FACSIMILE TRANSMITTAL FORM

Date:

May 2, 1990

Destination:

MT. VERN

ATTENTION:

ANDREA JERIS

Telephone Number:

Facsimile Number:

415-961-3966

From:

Doug Wildge

Number of Pages: 1 of 4

Confidential: Yes No

Urgent:  Yes No

Description:

ANDREA, ATTACHED ARE 3 CHART  
CHANGES FOR JJSEM. THEY ARE CHART NO'S  
JJSEM 1-4, JJSEM-DRW4-10 AND JJSEM-DRW4-21.  
THE BOOK FOR JAPAN SHOULD BE 4 CHARTS TO  
A PAGE AND IN THE FOLLOWING SEQUENCE,  
1. SYSTEMS INTEGRATION - JJSEM 1-1 THRU JJSEM 1-25  
2. NETWORK INTEGRATION - JJSEM 2-1 THRU JJSEM 2-29.  
3. IMAGE PROCESSING - JJSEM-DRW4-1 THRU JJSEM-DRW4-10  
4. PROGRAM MANAGEMENT - JJSEM 4-1 THRU JJSEM 4-67

\*\*\*\*\*  
INPUT Project Charge Code: \_\_\_\_\_

File: \_\_\_\_\_

Chron: \_\_\_\_\_

Contact: \_\_\_\_\_

Other: \_\_\_\_\_ (specify) \_\_\_\_\_

Doug

CALIFORNIA - NEW YORK - WASHINGTON, D.C. - LONDON - PARIS - TOKYO



# INPUT

1953 Gallows Road, Suite 560, Vienna VA 22182 (703) 847-6870  
Fax (703) 847-6872

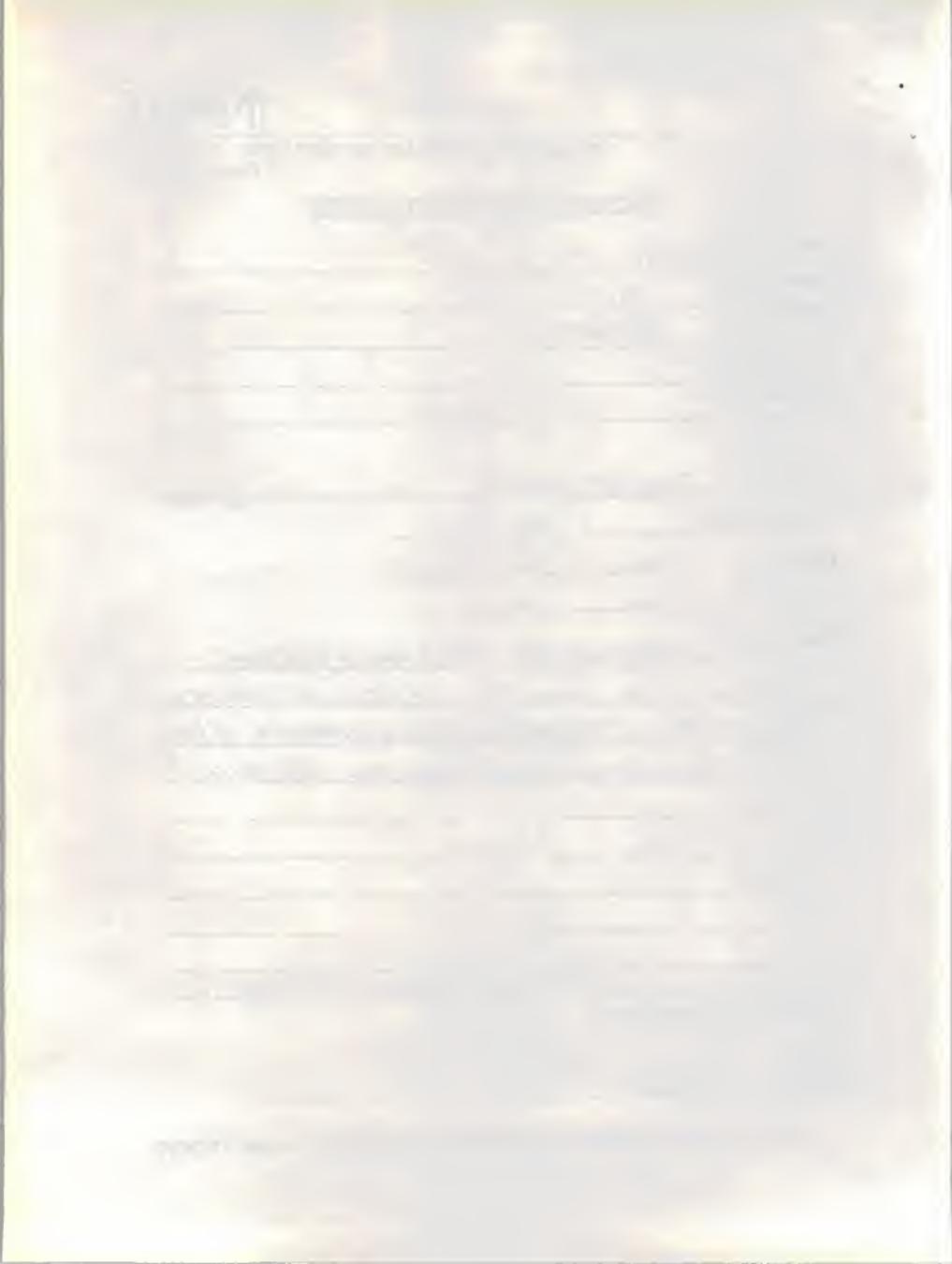
## FACSIMILE TRANSMITTAL FORM

Date: 5/4/90  
Destination: M. V.  
ATTENTION: ANDREA  
Telephone Number:  
Facsimile Number:

From: JOHN E. FRANK  
Number of Pages: 1 of 3  
Confidential: Yes        No ✓  
Urgent: Yes        No ✓  
Description: DESPITE ALL OUR "CARE AND ATTENTION",  
WE MISSED TWO CHARTS IN THE ORIGINAL DRAFTS -  
PLEASE MAKE 2 REPLACING SLIDES, 3 MASTERS (B&W)  
PRINTS AND RETURN ASAP (NEED FOR 5/10 BREAK).  
  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\*\*\*\*\*  
INPUT Project Charge Code: \_\_\_\_\_  
File: \_\_\_\_\_  
Chron: \_\_\_\_\_  
Contact: \_\_\_\_\_  
Other: \_\_\_\_\_ (specify) \_\_\_\_\_

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## Leading Systems Integration Vendors Vertical Industry Penetration

Vendor	<u>Number of Industries</u>
IBM	13
EDS/GM	10
Andersen Consulting	9
CSC	7
SHL Systemhouse	6

INPUT  
SIIRC-JEF-35

Same as 115EM1-20

Notes

1960-1961  
1961-1962

1962-1963

1963

1964

1965

1966

1967

1968-1969

1969-1970

1970-1971

1971-1972

1972-1973

1973-1974

1974-1975

1975-1976

1976-1977

1977-1978

RCV BY:XEROX TELECOPIER 7010 : 5- 4-90 1:29PM :  
SENT BY:INPUT WASHINGTON DC : 5- 4-90 4:26AM :

7036476872→ 4159613966;# 3  
7036476872→ 4159613966;# 3

## Leading Systems Integration Vendors Vertical Industry Penetration

Vendor	Number of Industries <u>Share (Percent)</u>
AT&T	6
Unisys	5
BCS	5
DEC	5

INPUT  
SIIRC-JEF-36

SAME AS *VJSW1-2*

### Notes

1950-51 1951-52 1952-53 1953-54

1954-55 1955-56 1956-57 1957-58

1958-59 1959-60 1960-61 1961-62

1962-63 1963-64 1964-65 1965-66

1966-67 1967-68 1968-69 1969-70

1970-71 1971-72 1972-73 1973-74

1974-75 1975-76 1976-77 1977-78

1978-79 1979-80 1980-81 1981-82

1982-83 1983-84 1984-85 1985-86

1986-87 1987-88 1988-89 1989-90

1990-91 1991-92 1992-93 1993-94

1994-95 1995-96 1996-97 1997-98

1998-99 1999-2000 2000-2001 2001-2002

2002-2003 2003-2004 2004-2005 2005-2006

2006-2007 2007-2008 2008-2009 2009-2010

2010-2011 2011-2012 2012-2013 2013-2014

2014-2015 2015-2016 2016-2017 2017-2018

2018-2019 2019-2020 2020-2021 2021-2022

2022-2023 2023-2024 2024-2025 2025-2026

2026-2027 2027-2028 2028-2029 2029-2030

2030-2031 2031-2032 2032-2033 2033-2034

2034-2035 2035-2036 2036-2037 2037-2038

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2042-2043 2043-2044 2044-2045 2045-2046

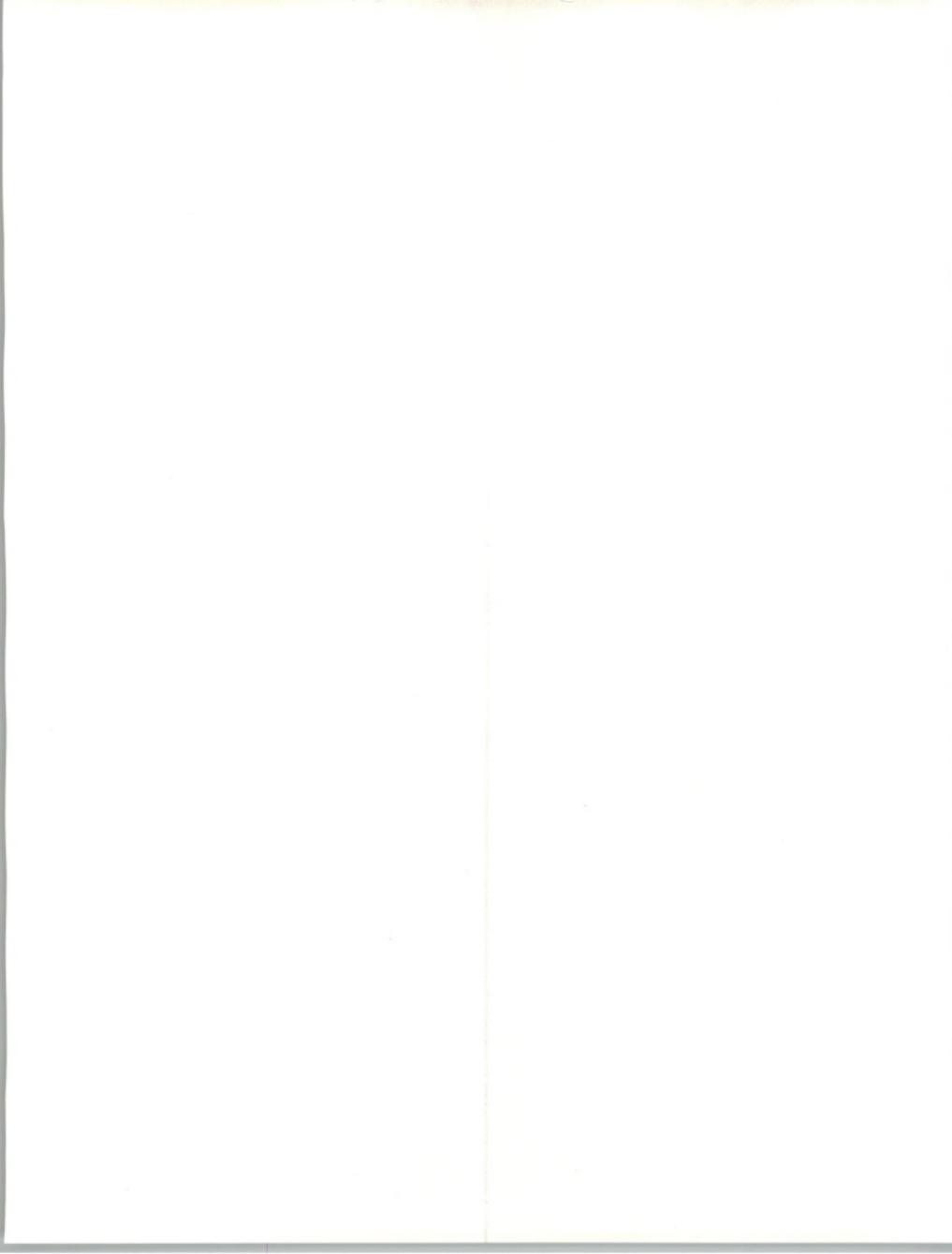
2046-2047 2047-2048 2048-2049 2049-2050

2050-2051 2051-2052 2052-2053 2053-2054

## **Network Integration**

---

**A Growing Opportunity**

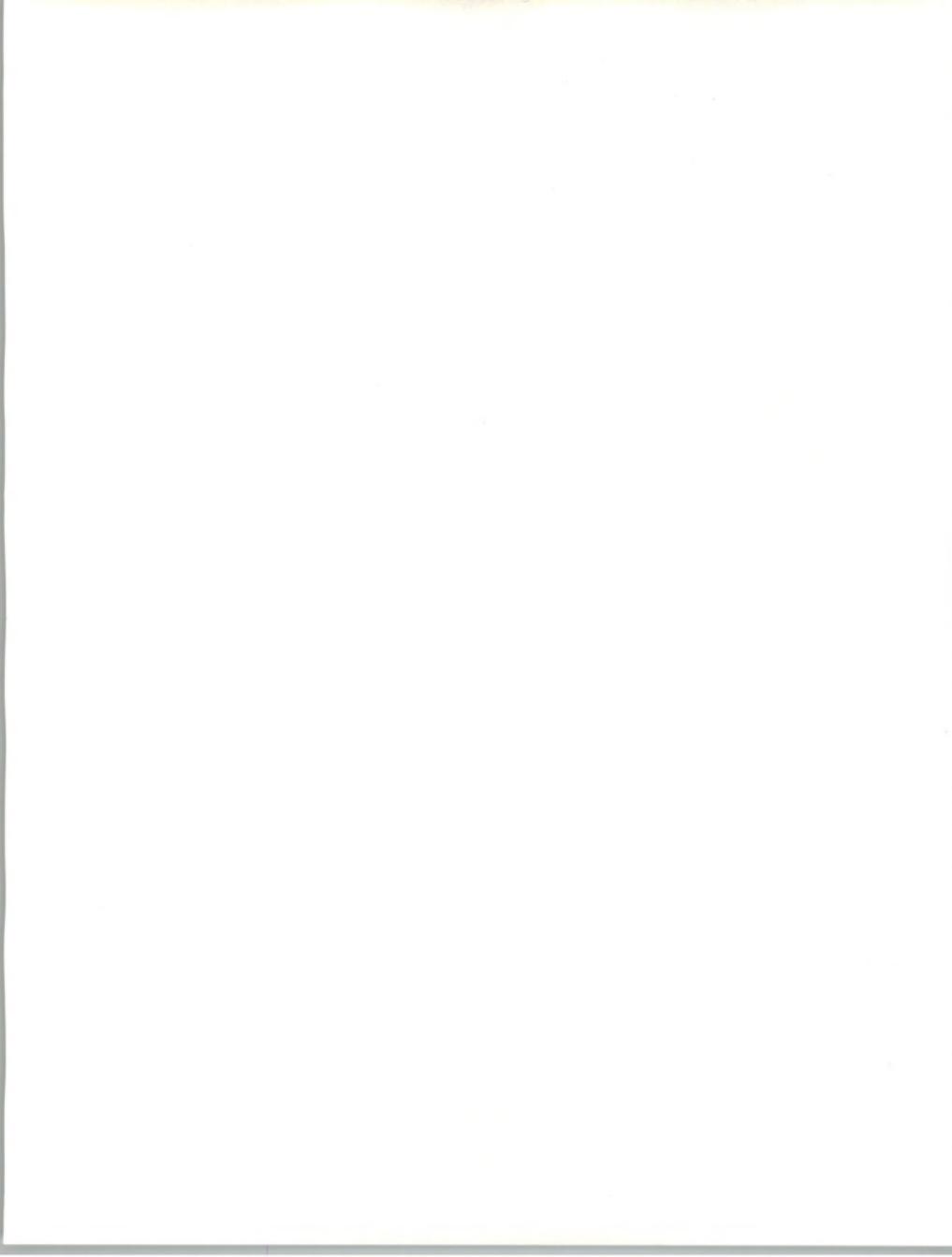


## Contents

- Definitions
- Business drivers
- Technology trends
- Market forecast
- Vendors
- Summary

INPUT  
JJSEM-2-2

Notes



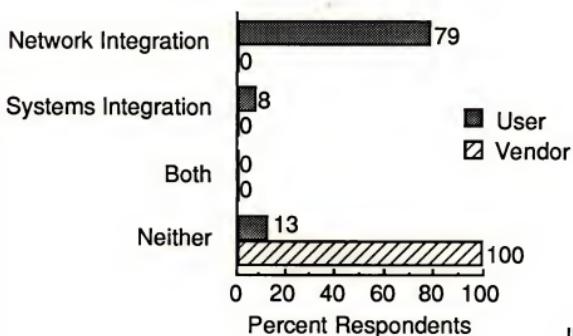
# Definitions

INPUT  
JJSEM-2-3

Notes

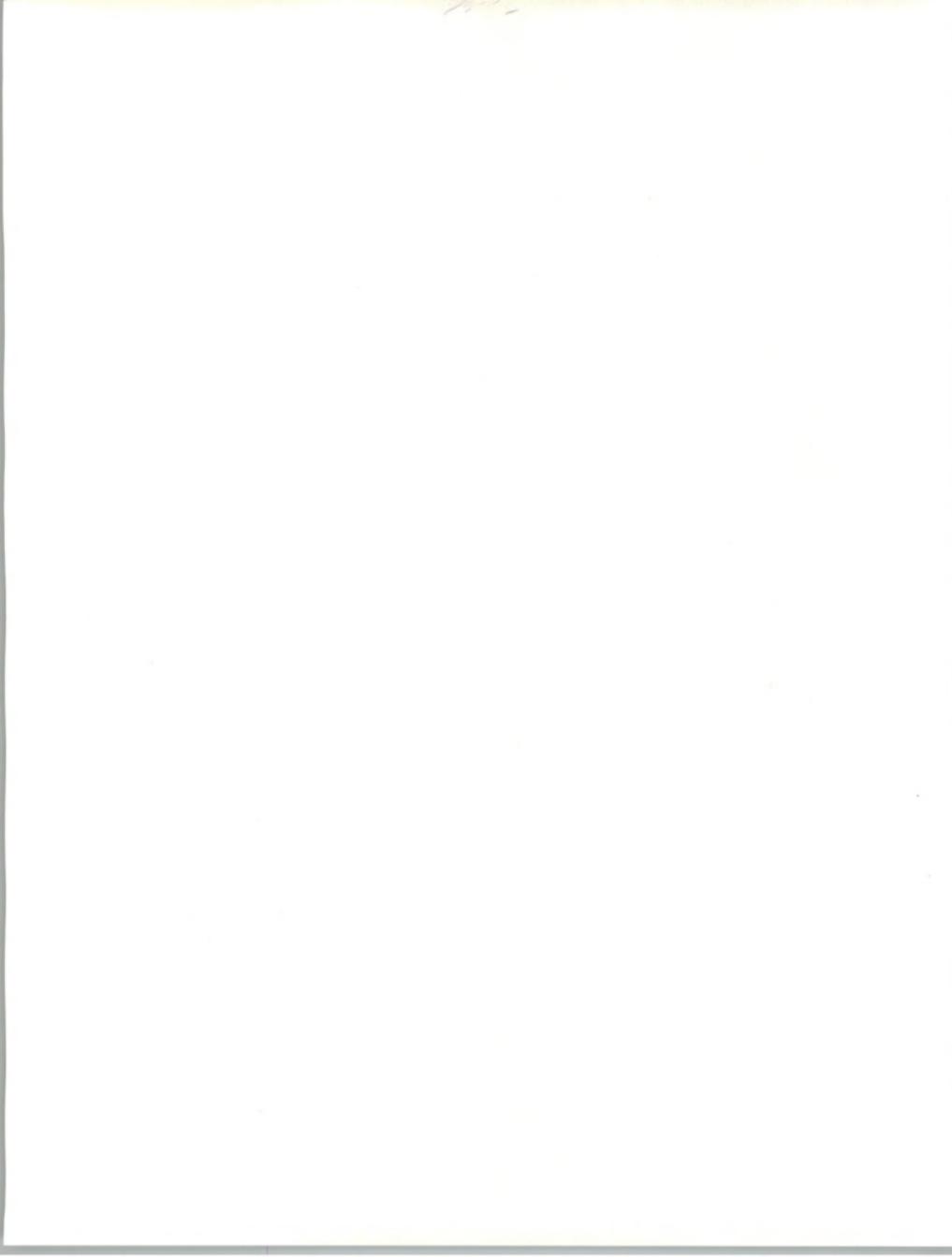


## Network Consolidation

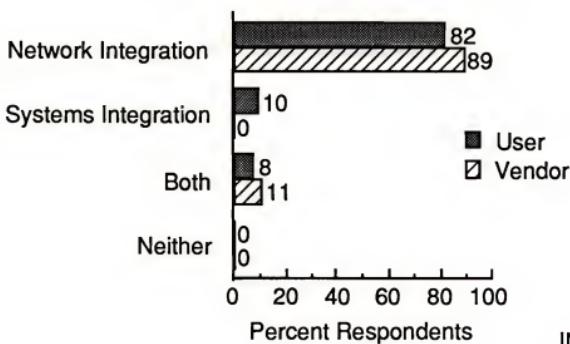


INPUT  
JJSEM-2-4

Notes



## Voice/Data Integration

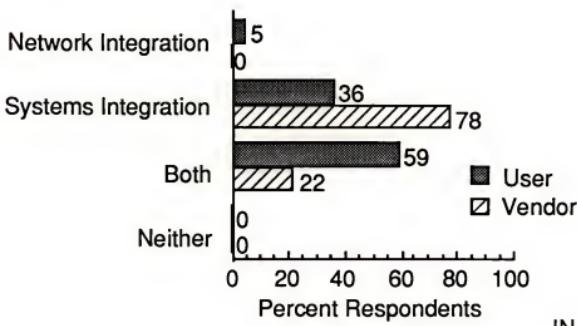


INPUT  
JJSEM-2-5

Notes



## Voice/Data/Application Integration

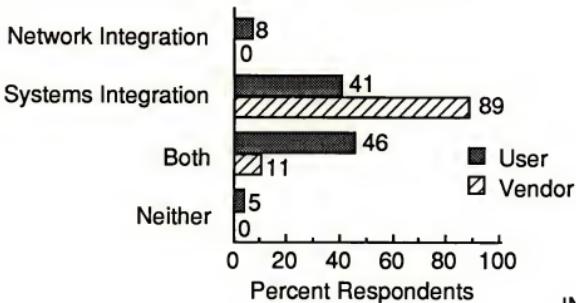


INPUT  
JJSEM-2-6

Notes



## Systems Integration (Network Component)

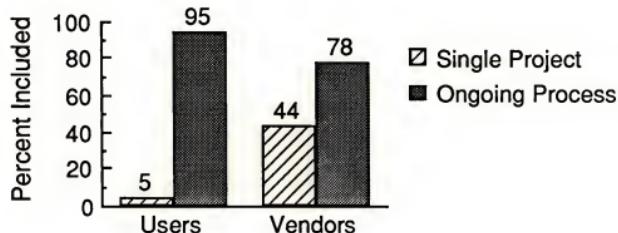


INPUT  
JJSEM-2-7

Notes



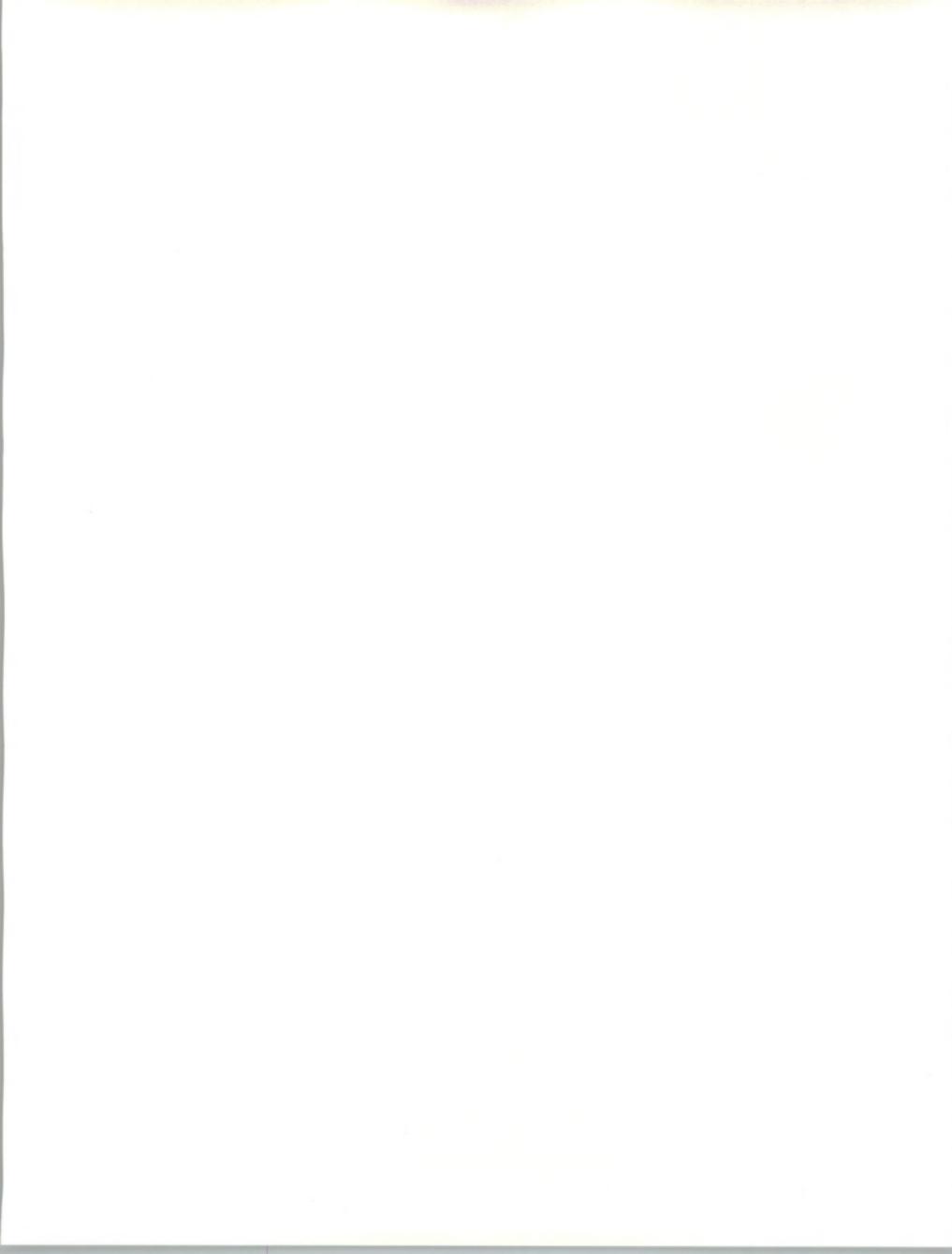
## Is NI a Process or a Project?



Data totals more than 100% due to multiple responses

INPUT  
JJSEM-2-8

Notes



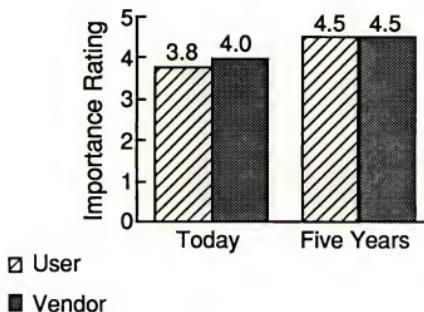
# Business Development

INPUT  
JJSEM-2-9

Notes

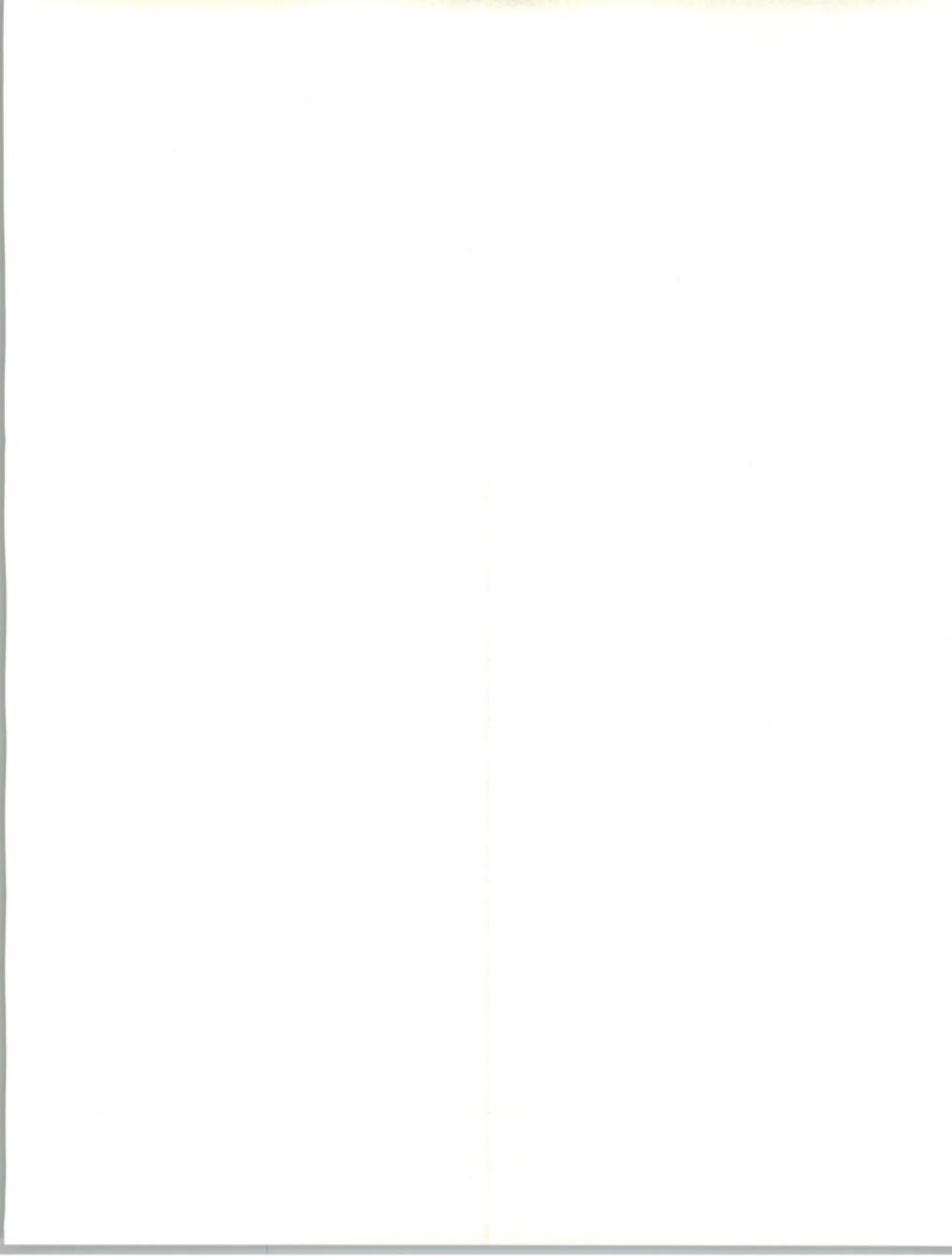


## Importance of Network Integration

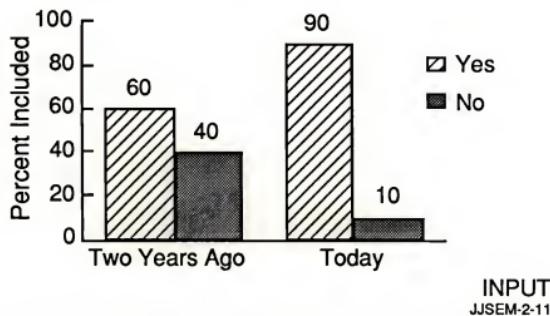


INPUT  
JJSEM-2-10

Notes



## Network Integration and Information Services Strategic Plan



INPUT  
JJSEM-2-11

### Notes



## Network Integration Business Trends

- Increasing complexity
- Organization downsizing
- Global competitiveness
- Strategic positioning

INPUT  
JJSEM-2-12

Notes



# Technology Trends

INPUT  
JJSEM-2-13

Notes



## Network Integration Technology Trends

- Robust public networks
- Virtual network capability
- Enhanced value-added networks
- Increased PBX functionality
- Enhanced local-area networks

INPUT  
JJSEM-2-14

Notes

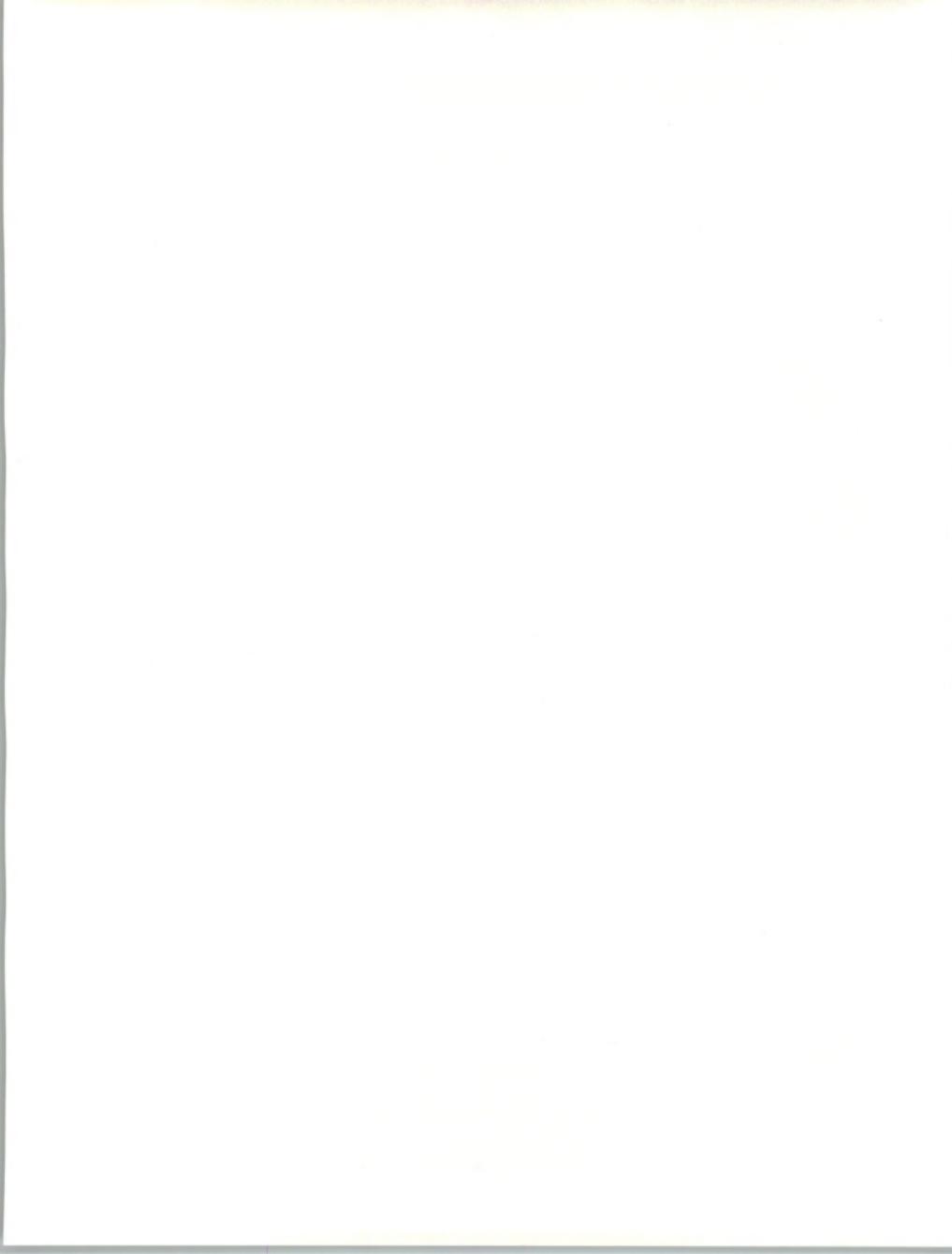


## Network Integration Technology Trends

- Intelligent multiplexers
- RDBMSs
- Distributed processing
- PC/Workstation growth

INPUT  
JJSEM-2-15

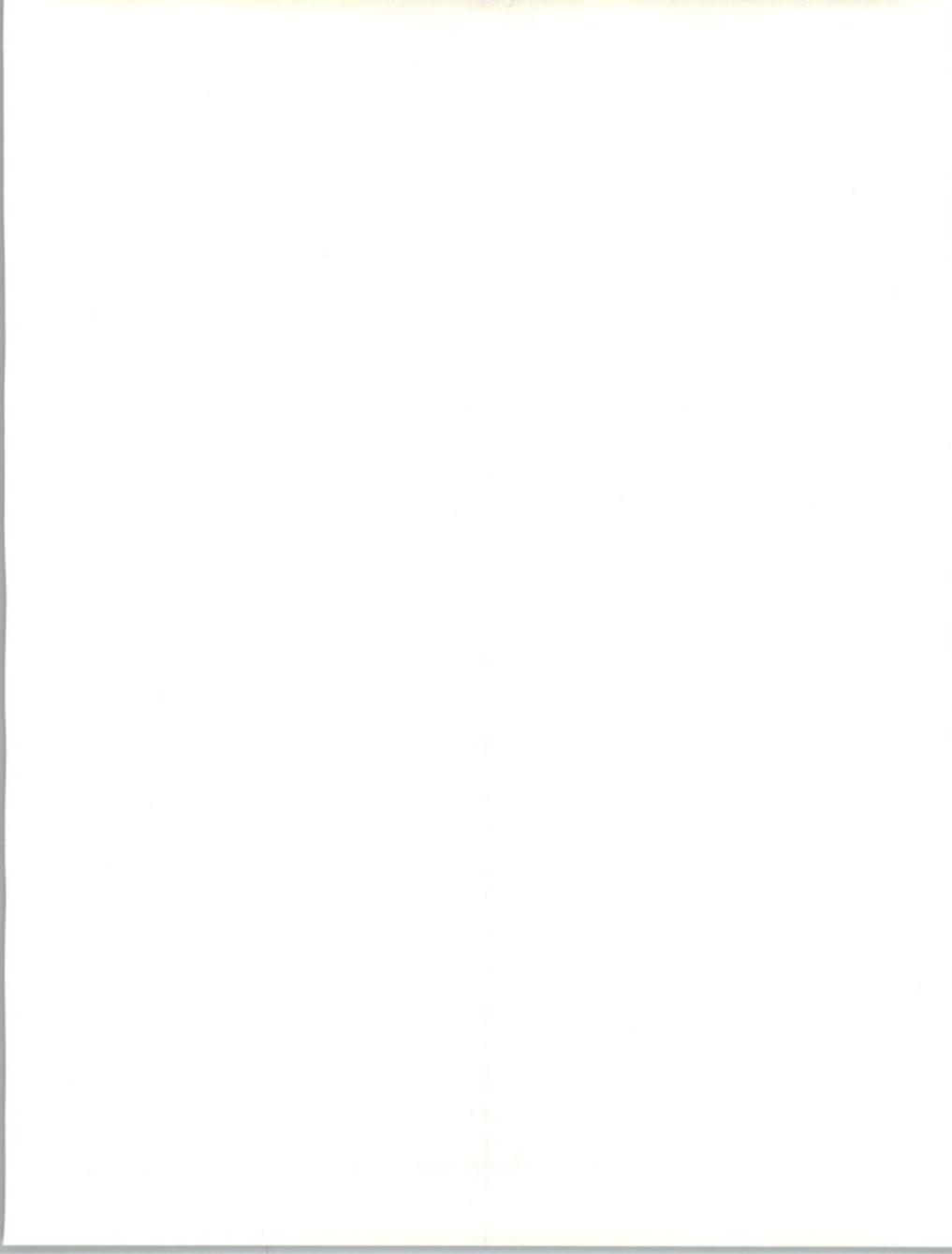
Notes



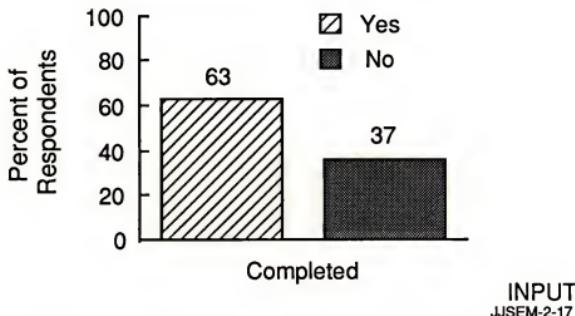
# Market Forecast

INPUT  
JJSEM-2-16

Notes



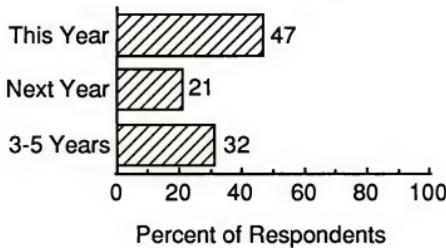
## Network Integration Users Completed Projects



Notes



## Network Integration Users Planned Projects

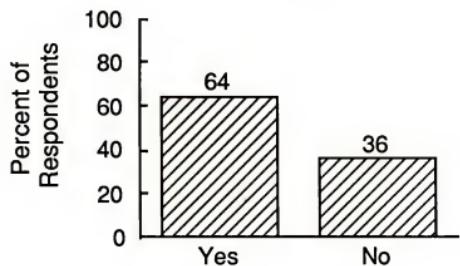


INPUT  
JJSEM-2-18

Notes

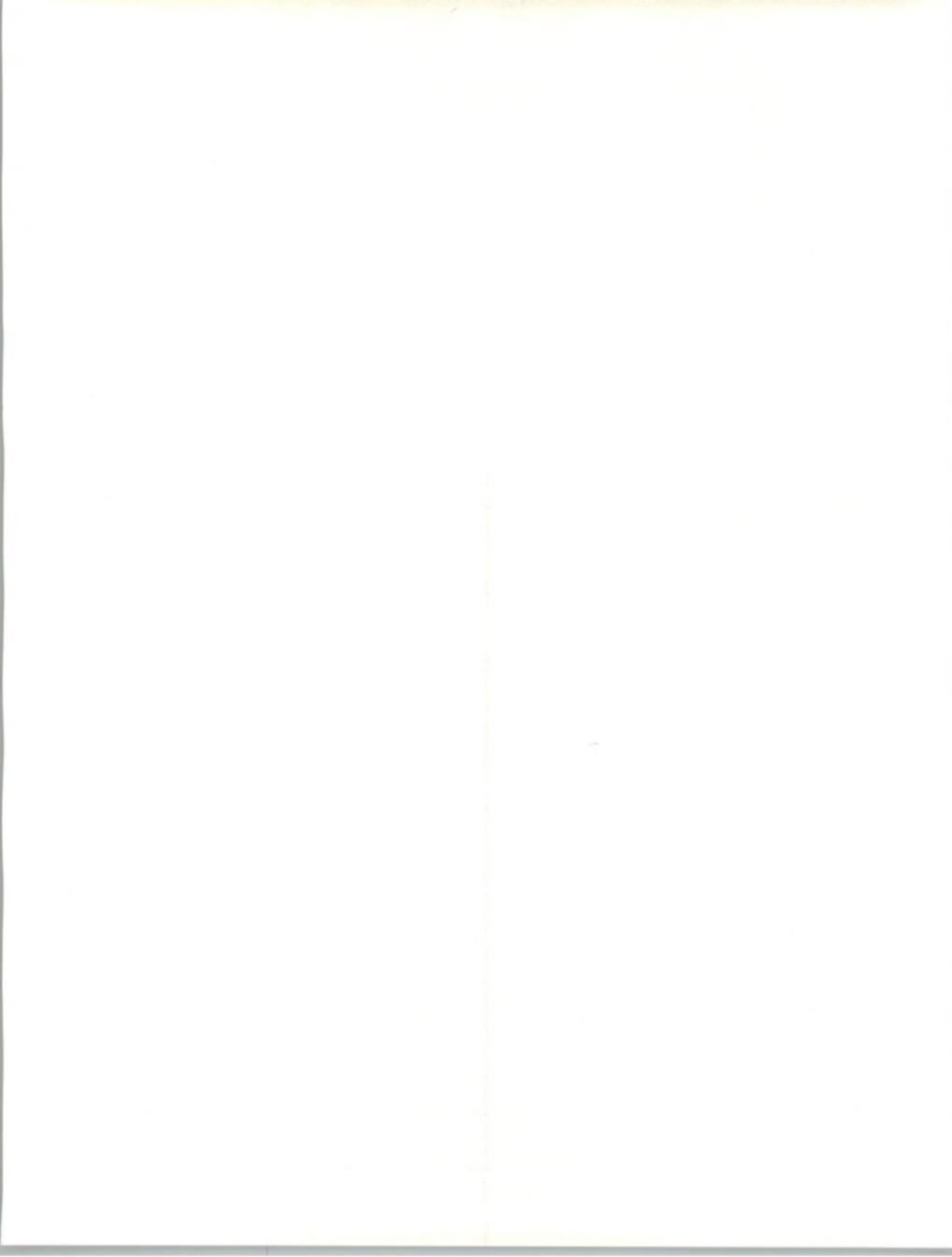


## Users That Would Consider Contracting

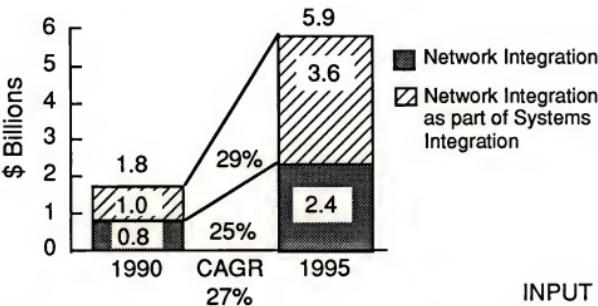


INPUT  
JJSEM-2-19

Notes



## Commercial Network Integration Expenditures, 1990-1995



### Notes



# Vendors

INPUT  
JJSEM-2-21

Notes



## Primary Vendors' Capabilities

- Multivendor connectivity
- Ongoing support
- Network management
- Customer knowledge
- Prior experience
- Organizational stability

INPUT  
JJSEM-2-22

Notes

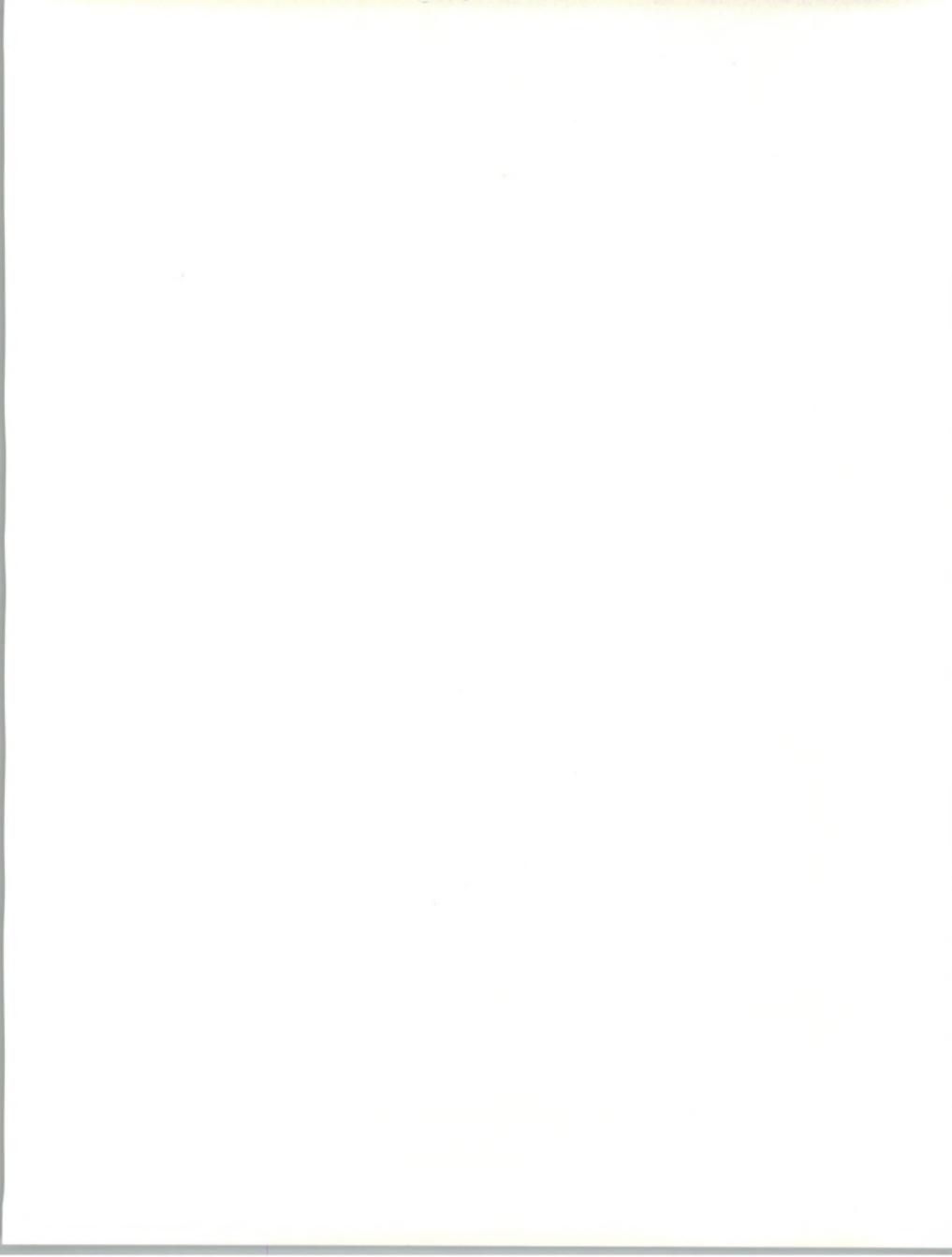


## Network Integration Leading Vendors

- IBM
- AT&T
- DEC
- Novell
- 3Com

INPUT  
JJSEM-2-23

Notes



# Summary

INPUT  
JJSEM-2-24

Notes

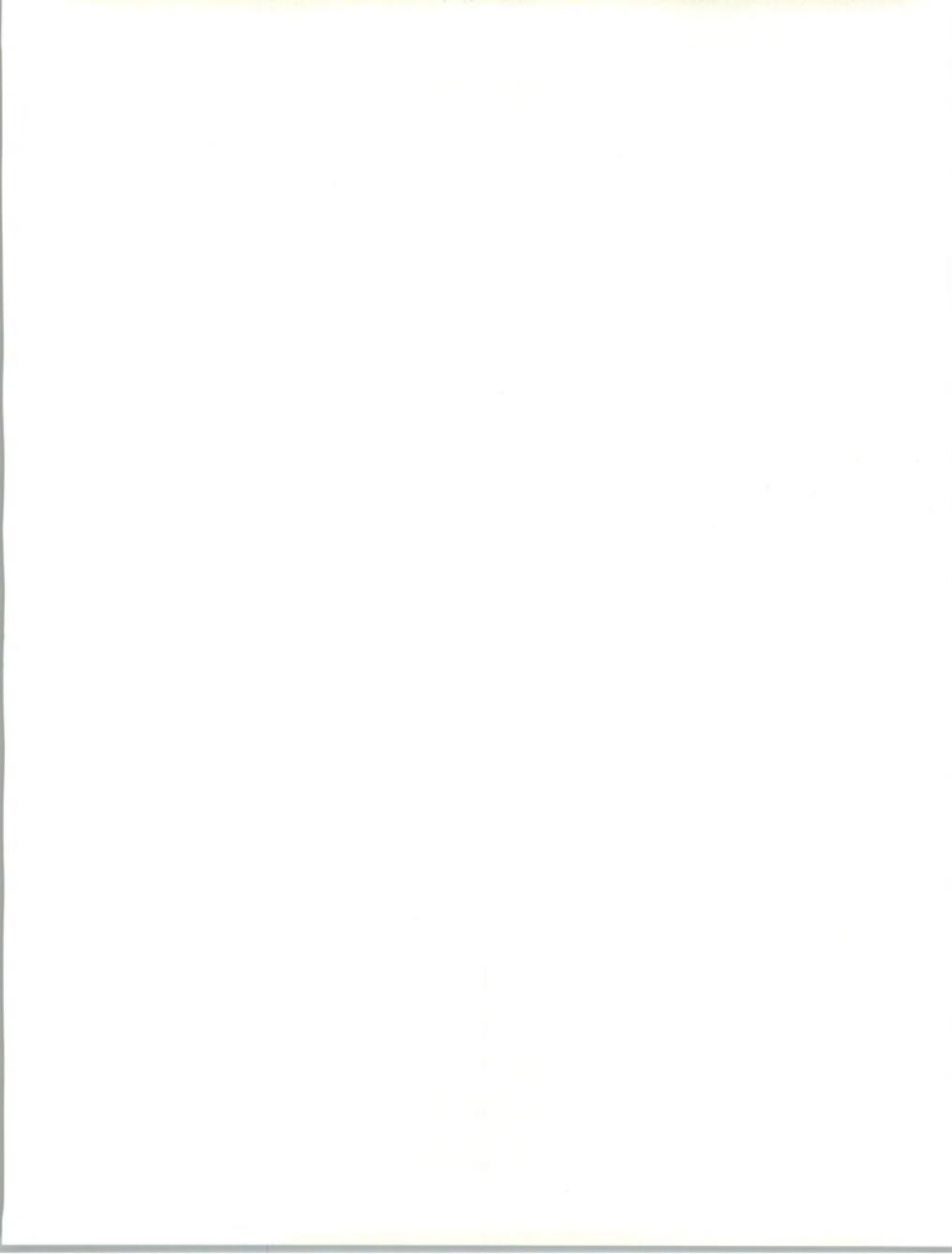


## Driving Forces in Network Integration

- Business requirements
- LAN integration
- Network management tools
- ISDN services
- Reduced costs

INPUT  
JJSEM-2-25

Notes

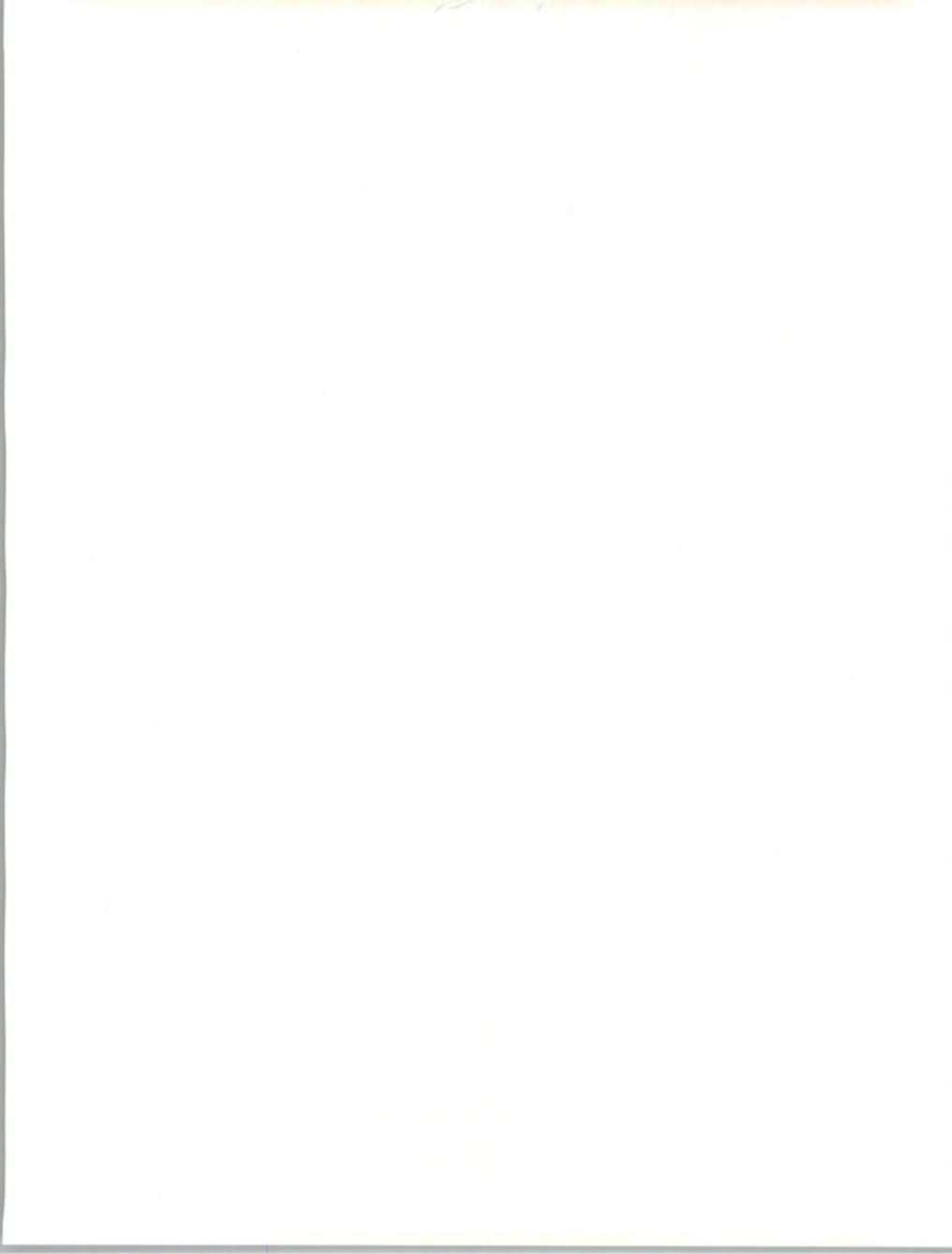


## Network Integration Inhibiting Factors

- Need expertise in-house
- Vendors lack skills
- Vendors don't know business
- Better quality in-house
- Too important to contract

INPUT  
JJSEM-2-26

Notes

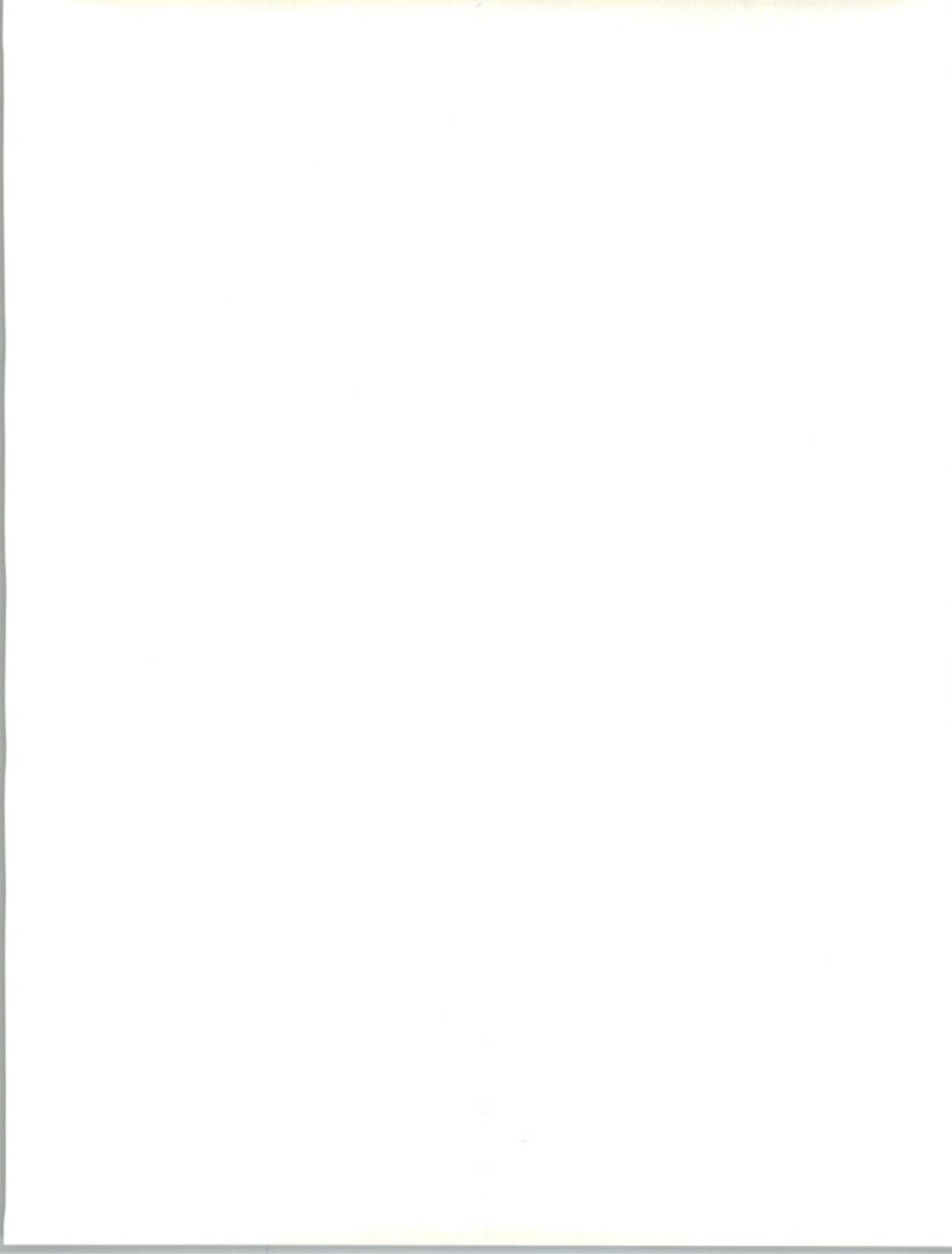


## Conclusions

- Integrated networks important
- NI/SI labels not important
- Network integration a process
- Total integration not possible
- Local-area/office networks need integrating

INPUT  
JJSEM-2-27

## Notes



## Conclusions

- Few vendors are network integrators
- Support necessary
- Multivendor expertise necessary
- Organizational knowledge necessary

INPUT  
JJSEM-2-28

Notes

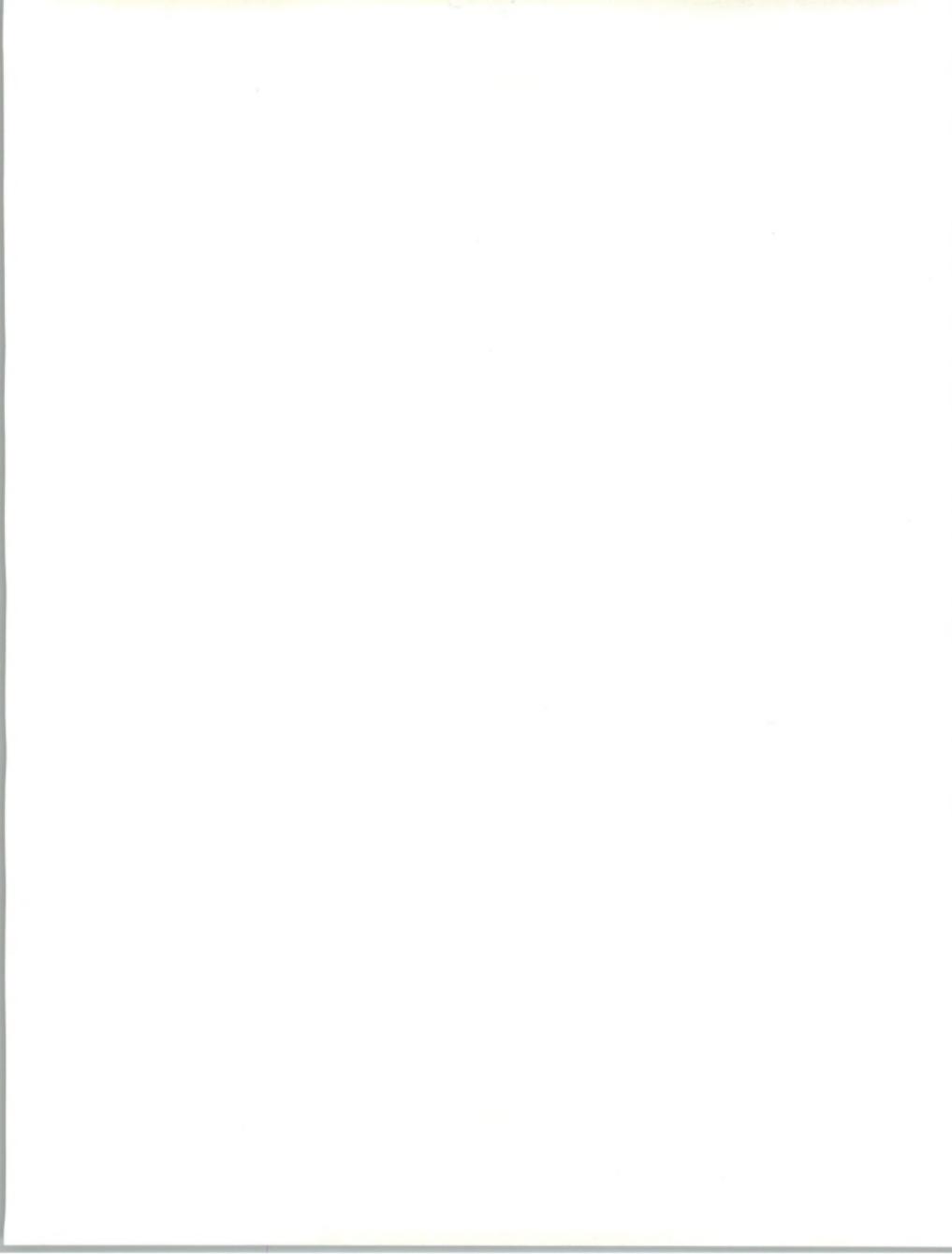


## Recommendations

- Focus on platform integration
- Understand the end user
- Understand information flow
- Provide network support

INPUT  
JJSEM-2-29

## Notes



*Japan presentation  
Section 2*

~~JSOT-DEM-3~~

JSSEM-2

## Network Integration

### A Growing Opportunity

INPUT  
SMB-AG-1

#1

## Contents

- Definitions
- Business drivers
- Technology trends
- Market forecast
- Vendors *STET*
- Summary

INPUT  
SMB-AG-2

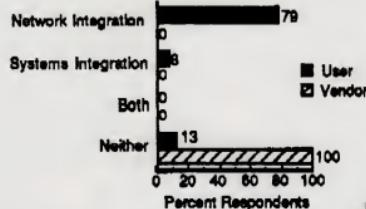
#2

## Definitions

INPUT  
SMB-AG-3

#3

## Network Consolidation



INPUT  
SMB-AG-4

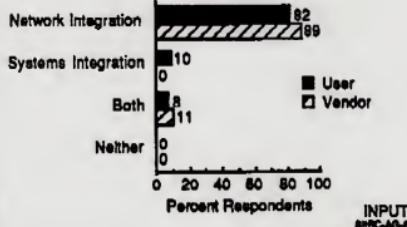
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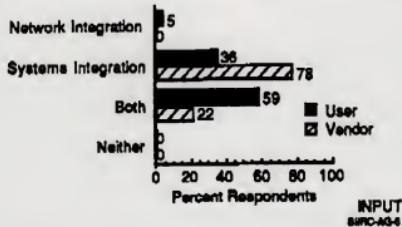
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4159613966→ 7038476872:# 3

### Voice/Data Integration



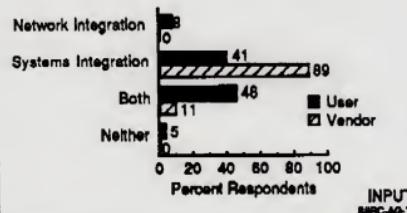
### Voice/Data/Application Integration



#5

#6

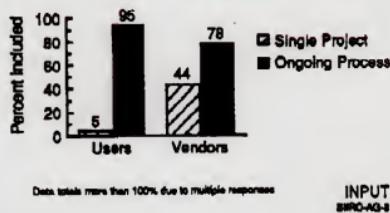
### Systems Integration (Network Component)



#7

IS NI a

### Process versus Project Consideration



#8



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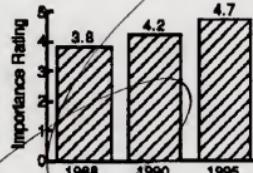
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## Business Development

INPUT  
BIRC-AG-4

#9

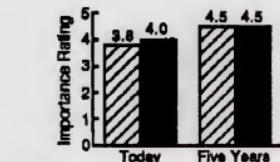
## Network Importance to Business



INPUT  
BIRC-AG-10

#10

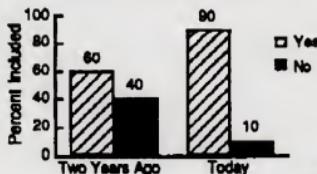
## Importance of Network Integration



INPUT  
BIRC-AG-11

#10

## Network Integration and Information Services Strategic Plan



INPUT  
BIRC-AG-12

#11



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4159613966→ 7038476872:# 5

### Network Integration Business Trends

- Increasing complexity
- Organization downsizing
- Global competitiveness
- Strategic positioning

INPUT  
BIRC-AD-13

### Technology Trends

INPUT  
BIRC-AD-14

#12

#13

### Network Integration Technology Trends

- Robust public networks
- Virtual network capability
- Enhanced value-added networks
- Increased PBX functionality
- Enhanced local-area networks

INPUT  
BIRC-AD-15

### Network Integration Technology Trends

- Intelligent multiplexers
- RDBMSs
- Distributed processing
- PC/Workstation growth

INPUT  
BIRC-AD-16

#14

#15

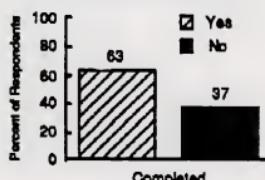


## Market Forecast

INPUT  
SIRC-AG-17

#16

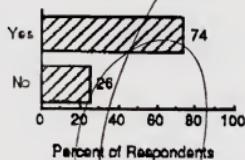
### Network Integration Users Completed Projects



INPUT  
SIRC-AG-18

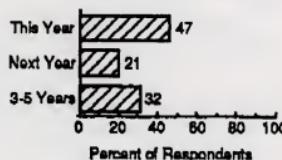
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### Network Integration Users Planned Projects



INPUT  
SIRC-AG-19a

### Network Integration Users Planned Projects



INPUT  
SIRC-AG-19b

#18

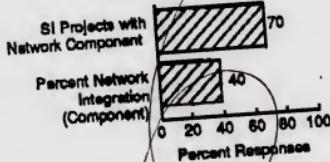


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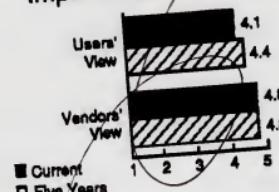
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7038476872;# 7

### Network Portion of Systems Integration Projects



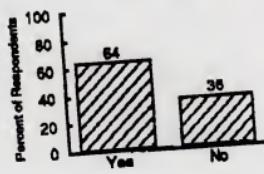
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SRC-AG-10

### Network Integration Importance to SI Projects



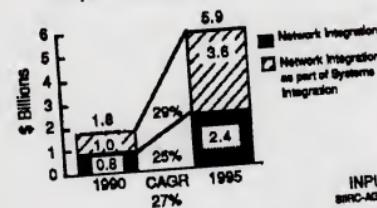
INPUT  
SRC-AG-11

### Users That Would Consider Contracting



INPUT  
SRC-AG-12

### Commercial Network Integration Expenditures, 1990-1995



INPUT  
SRC-AG-13

#19

#20



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4159613966→ 7038476872;# 8

### Network Integration Services Leading Industry Sectors

Sector	Rank
Banking/Finance	1
Manufacturing	2
State/Local Govt.	3
Retail Distribution	4

INPUT  
BIRC-AG-34

### Vendors

INPUT  
BIRC-AG-35

#21

### Primary Vendors' Capabilities

- Multivendor connectivity
- Ongoing support
- Network management
- Customer knowledge
- Prior experience
- Organizational stability

INPUT  
BIRC-AG-36

### Network Integration Leading Vendors

- IBM
- AT&T
- DEC
- Novell
- 3Com

INPUT  
BIRC-AG-37

#22

#23



## Summary

INPUT  
BIRC-AG-28

## Driving Forces in Network Integration

- Business requirements
- LAN Integration
- Network management tools
- ISDN services
- Reduced costs

INPUT  
BIRC-AG-29

#24

#25

## Network Integration Inhibiting Factors

- Need expertise in-house
- Vendors lack skills
- Vendors don't know business
- Better quality in-house
- Too important to contract

INPUT  
BIRC-AG-30

## Conclusions

- Integrated networks important
- NI/SI labels not important
- Network Integration a process
- Total integration not possible
- Local-area/office networks need integrating

INPUT  
BIRC-AG-31

#26

#27



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SENT BY:INPUT (MTN VIEW) : 4-20-90 12:10PM ;

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4159613966→

7038476872:#10

### Conclusions

- Few vendors are network integrators
- Support necessary
- Multivendor expertise necessary
- Organizational knowledge necessary

INPUT  
BPRC-AG-22

#28

### Recommendations

- Focus on platform integration
- Understand the end user
- Understand information flow
- Provide network support

INPUT  
BPRC-AG-23

#29

